**Where to find calculated data in cSurvey objects**

Calculated data, due to many changed occurred, are stored in two place: in each segment object there are data related to shots (and subshots) and projected data used to draw centerline, in Calculate object there are 3D data about stations and other survey level calculated informations.  
*Note: in future, I have planned to migrate shot related calculate data from segment object to some objects related to Calculate object. But this is not a key change...*

Shots (segments):

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| Segment.Data | Give access to shot based calculated data. |
| **Base shot data** Contains data about distance, inclination and bearing, the name of from station and name of to station, the flag reporting if shot is reversed and the draw direction in profile (extended elevation). Reversed is a calculate flag. When cSurvey found shot that could not be followed in the original direction (from→to) reverse it, set reversed flag and manage all data with this condition.  For reversed shot from and to names are 'reversed' to. The original data are stored in segment object.  *Note: a more correct name for this proprieties may be SpatialData and SpatialOldData. All information stored in object documented as 'advanced shot data' are referred to Segment.Data.Data base data.* | |
| Segment.Data.Data | contains current base shot data (distance, inclination and bearing) |
| Segment.Data.OldData | Contains previous base shot data (distance, inclination and bearing) (data valid before the last data change)  This datas are used to calculate change in centerline. |
| Segment.Data.SourceData | Contains file loaded base shot data (distance, inclination and bearing)  *THIS DATA HAVE TO CHECKED...MY BE UNUSED NOW* |
| **Advanced shot data** Contains extra calculated data for each shot: projected 2D points, LRUD calculated 2D point and subdata (used for 3D model based on drawed edge). | |
| Segment.Data.SubDatas | Contains collection of data about fake shots for LRUD oversampling:  - from station  - to station  - distance of fake shot (bearing and inclination are the same of the original shot)  - references to projected fake shot data (see Segment.Data.Plan.SubDatas and Segment.Data.Profile.SubDatas) |
| Segment.Data.Plan | Contains plan projected data (2D) of the shot:  - from station  - to station Data about LR calculated using session's setting  - L from point (plan position of point at the end of L virtual shot)  - L from bearing (direction of the L virtual shot)  - R from point (plan position of point at the end of R virtual shot)  - R from bearing (direction of the R virtual shot)  - L to point (plan position of point at the end of L virtual shot)  - L to bearing (direction of the L virtual shot)  - R to point (plan position of point at the end of R virtual shot)  - R to bearing (direction of the R virtual shot)  - collection of from splay (see Segment.Data.Plan.FromSplay)  - collection of to splay (see Segment.Data.Plan.ToSplay) |
| Segment.Data.Plan.FromSplay  Segment.Data.Plan.ToSplay | Contains splay projected data:  - from point (the real station)  - to point (the splay point) Each shot have specific splay options so each shot could have a different set o from and to splay. In plan there's some minor duplication but in profile no due to the different projection plan of each shot. |
| Segment.Data.Plan.SubDatas | Contains a collection of subdata (fake shots) projected data:  - fake from point  - fake to point  - calculated LR data and bearing (always perpedicular to original shot) like for Segment.Data.Plan |
| Segment.Data.Profile | Contains profile projected data (2D) of the shot:  - from station  - to station  - U from point (profile position of point at the end of U virtual shot)  - D from point (profile position of point at the end of D virtual shot)  - U to point (profile position of point at the end of U virtual shot)  - D to point (profile position of point at the end of D virtual shot)  - collection of from projected splay (see Segment.Data.Profile.FromSplay)  - collection of to projected splay (see Segment.Data.Profile.ToSplay) |
| Segment.Data.Profile.FromSplay  Segment.Data.Profile.ToSplay | Contains splay projected data:  - from point (the real station)  - to point (the splay point) |
| Segment.Data.Profile.SubDatas | Contains a collection of subdata (fake shots) projected data:  - fake from point  - fake to point  - calculated UD data like for Segment.Data.Profile |

Stations (trigpoints) and other survey level informations:

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| Calculate.Rings | Contains informations about rings (directly derived from therion log) |
| Calculate.Speleometrics | Contains a collection of speleometric data stored by cave/branch:  - planimetric lenght  - lenght  - vertical ranges  - entrances  - coordinates of entrances |
| Calculate.GeoMagDeclinationData | Contains data about magnetic declination (directly derived from therion log) and meridian convergence value used to correct UTM data. |
| Calculate.Trigpoins | Collection of data about stations in 3D space (splay included):  - 3D point (X,Y,Z) plus information about profile (extended elevation) (D) - connection to/from other stations (splay included)  - geographic coordinate of station  - a collection of side measures (LR and UD) related to connections 3D base data are useful for locating station in real space, profile information (extended elevation) and many other data stored in calculate.trigpoint is used only for calculation. |